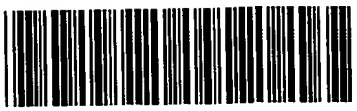
1646



1600

#24

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/732,436D

DATE: 09/11/2002
TIME: 10:22:35

Input Set : A:\Cura-115.app
Output Set: N:\CRF4\09112002\I732436D.raw

<110> APPLICANT: Prayaga, Suhhirdas K
Shimkets, Richard A
<120> TITLE OF INVENTION: Novel Polypeptides and Polynucleotides Encoding Same
<130> FILE REFERENCE: 15966-615
<140> CURRENT APPLICATION NUMBER: 09/732,436D
<141> CURRENT FILING DATE: 2000-12-07
<150> PRIOR APPLICATION NUMBER: 60/169,887
<151> PRIOR FILING DATE: 1999-12-09
<150> PRIOR APPLICATION NUMBER: 60/170,230
<151> PRIOR FILING DATE: 1999-12-10
<160> NUMBER OF SEQ ID NOS: 26
<170> SOFTWARE: PatentIn Ver. 2.1
<210> SEQ ID NO: 1
<211> LENGTH: 475
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 1
accaatggtc tccttgctgg tggcattggt gatgatctcc tgccacatct attccctttt 60
ctgcgacctg cctaaagctc aggtgatttc tgccctccat aagatgcacc agcagatctt 120
cagcctcttt ttacacaagg gcttgtctga tgcttggaat agggccttcc tggacaaact 180
ccagactgga tttcatcagc agctggaaga cctggagacc tgctttggta tagaggatgg 240
gaagcaagag tctgccctgg aaattgaggg ccctacactg gccataaaga ggtacttcca 300
gggagtacat ttcttcttga aagagaggaa attcaggaac tgtacctggg aggttgtcgt 360
aatggtaaag ggatttttct taagcacaaa acttcaagaa aaagagaaca gaagaaaaga 420
gaactgcaaa aaaaatctgg aaaaggtaat ctatttagca gaagagtgaa agctg 475
<210> SEQ ID NO: 2
<211> LENGTH: 154
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 2
Met Val Ser Leu Leu Val Ala Leu Val Met Ile Ser Cys His Ile Tyr
1 5 10 15
Ser Leu Phe Cys Asp Leu Pro Lys Ala Gln Val Ile Ser Ala Leu His
20 25 30
Lys Met His Gln Gln Ile Phe Ser Leu Phe Leu His Lys Gly Leu Ser
35 40 45
Asp Ala Trp Asn Arg Ala Phe Leu Asp Lys Leu Gln Thr Gly Phe His
50 55 60
Gln Gln Leu Glu Asp Leu Glu Thr Cys Phe Gly Ile Glu Asp Gly Lys
65 70 75 80
Gln Glu Ser Ala Leu Glu Ile Glu Gly Pro Thr Leu Ala Ile Lys Arg
85 90 95
Tyr Phe Gln Gly Val His Phe Phe Leu Lys Glu Arg Lys Phe Arg Asn

```
     64              100                 105                 110
     66 Cys Thr Trp Glu Val Val Val Met Val Lys Gly Phe Phe Leu Ser Thr
     67         115                 120                 125
     69 Lys Leu Gln Glu Lys Glu Asn Arg Arg Lys Glu Asn Cys Lys Lys Asn
     70     130                 135                 140
     72 Leu Glu Lys Val Ile Tyr Leu Ala Glu Glu
     73 145                 150
     76 <210> SEQ ID NO: 3
     77 <211> LENGTH: 610
     78 <212> TYPE: DNA
     79 <213> ORGANISM: Homo sapiens
     81 <220> FEATURE:
     82 <221> NAME/KEY: misc_feature
     83 <222> LOCATION: (74)..(208)
     84 <223> OTHER INFORMATION: Wherein n is a or t or c or g.
     86 <400> SEQUENCE: 3
     87 accaatggtc tccttgctgg tggcattggt gatgatctcc tgccacatct attccctttt 60
W--> 88 ctgcgacctg cctnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120
W--> 89 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180
W--> 90 nnnnnnnnnn nnnnnnnnnn nnnnnnnnaa agctcaggtg atttctgccc tccataagat 240
     91 gcaccagcag atcttcagcc tctttttaca caagggcttg tctgatgctt ggaatagggc 300
     92 cttcctggac aaactccaga ctggatttca tcagcagctg gaagacctgg agacctgctt 360
     93 tggtatagag gatgggaagc aagagtctgc cctggaaatt gagggcccta cactggccat 420
     94 aaagaggtac ttccagggag tacatttctt cttgaaagag aggaaattca ggaactgtac 480
     95 ctgggaggtt gtcgtaatgg taaagggatt tttcttaagc acaaaacttc aagaaaaaga 540
     96 gaacagaaga aaagagaact gcaaaaaaaa tctggaaaag gtaatctatt tagcagaaga 600
     97 gtgaaagctg                                                       610
    100 <210> SEQ ID NO: 4
    101 <211> LENGTH: 199
    102 <212> TYPE: PRT
    103 <213> ORGANISM: Homo sapiens
    105 <220> FEATURE:
    106 <221> NAME/KEY: VARIANT
    107 <222> LOCATION: (24)..(68)
    108 <223> OTHER INFORMATION: Wherein Xaa is any amino acid.
    110 <400> SEQUENCE: 4
    111 Met Val Ser Leu Leu Val Ala Leu Val Met Ile Ser Cys His Ile Tyr
    112   1               5                  10                  15
W--> 114 Ser Leu Phe Cys Asp Leu Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
    115             20                  25                  30
W--> 117 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
    118          35                  40                  45
W--> 120 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
    121      50                  55                  60
W--> 123 Xaa Xaa Xaa Xaa Lys Ala Gln Val Ile Ser Ala Leu His Lys Met His
    124  65                  70                  75                  80
    126 Gln Gln Ile Phe Ser Leu Phe Leu His Lys Gly Leu Ser Asp Ala Trp
    127                  85                  90                  95
    129 Asn Arg Ala Phe Leu Asp Lys Leu Gln Thr Gly Phe His Gln Gln Leu
```

```
130              100                 105                 110
132 Glu Asp Leu Glu Thr Cys Phe Gly Ile Glu Asp Gly Lys Gln Glu Ser
133         115                 120                 125
135 Ala Leu Glu Ile Glu Gly Pro Thr Leu Ala Ile Lys Arg Tyr Phe Gln
136     130                 135                 140
138 Gly Val His Phe Phe Leu Lys Glu Arg Lys Phe Arg Asn Cys Thr Trp
139 145                 150                 155                 160
141 Glu Val Val Val Met Val Lys Gly Phe Phe Leu Ser Thr Lys Leu Gln
142                 165                 170                 175
144 Glu Lys Glu Asn Arg Arg Lys Glu Asn Cys Lys Lys Asn Leu Glu Lys
145             180                 185                 190
147 Val Ile Tyr Leu Ala Glu Glu
148         195
151 <210> SEQ ID NO: 5
152 <211> LENGTH: 1887
153 <212> TYPE: DNA
154 <213> ORGANISM: Homo sapiens
156 <400> SEQUENCE: 5
157 atggccatcc tcccgttgct cctgtgcctg ctgccgctgg cccctgcctc atccccaccc 60
158 cagtcagcca cacccagccc atgtccccgc cgctgccgct gccagacaca gtcgctgccc 120
159 ctaagcgtgc tgtgcccagg ggcaggcctc ctgttcgtgc caccctcgct ggaccgccgg 180
160 gcagccgagc tgcggctggc agacaacttc atcgcctccg tgcgccgccg cgacctggcc 240
161 aacatgacag gcctgctgca tctgagcctg tcgcggaaca ccatccgcca cgtggctgcc 300
162 ggcgccttcg ccgacctgcg ggccctgcgt gccctgcacc tggatggcaa ccggctgacc 360
163 tcactgggcg agggccagct gcgcggcctg gtcaacttgc gccacctcat cctcagcaac 420
164 aaccagctgg cagcgctggc ggccggcgcc ctggatgatt gtgccgagac actggaggac 480
165 ctcgacctct cctacaacaa cctcgagcag ctgccctggg aggccctggg ccgcctgggc 540
166 aacgtcaaca cgttgggcct cgaccacaac ctgctggctt ctgtgcccgc cggcgctttt 600
167 tcccgcctgc acaagctggc ccggctggac atgacctcca accgcctgac cacaatccca 660
168 cccgacccac tcttctcccg cctgcccctg ctcgccaggc cccggggctc gcccgcctct 720
169 gccctggtgc tggcctttgg cgggaacccc ctgcactgca actgcgagct ggtgtggctg 780
170 cgtcgcctgg cgcgggagga cgacctcgag gcctgcgcgt ccccacctgc tctgggcggc 840
171 cgctacttct gggcggtggg cgaggaggag tttgtctgcg agccgcccgt ggtgactcac 900
172 cgctcaccac ctctggctgt gcccgcaggt cggccggctg ccctgcgctg ccgggcagtg 960
173 ggggacccag agccccgtgt gcgttgggtg tcaccccagg gccggctgct aggcaactca 1020
174 agccgtgccc gcgccttccc caatgggacg ctggagctgc tggtcaccga gccgggtgat 1080
175 ggtggcatct tcacctgcat tgcggccaat gcagctggcg aggccacagc tgctgtggag 1140
176 ctgactgtgg gtcccccacc acctcctcag ctagccaaca gcaccagctg tgacccccg 1200
177 cgggacgggg atcctgatgc tctcacccca ccctccgctg cctctgcttc tgccaaggtg 1260
178 gccgacactg ggcccccctac cgaccgtggc gtccaggtga ctgagcacgg ggccacagct 1320
179 gctcttgtcc agtggccgga tcagcggcct atcccgggca tccgcatgta ccagatccag 1380
180 tacaacagct cggctgatga catcctcgtc tacaggatga tcccggcgga gagccgctcg 1440
181 ttcctgctga cggacctggc gtcaggccgg acctacgatc tgtgcgtgct cgccgtgtat 1500
182 gaggacagcg ccacggggct cacggccacg cggcctgtgg gctgcgcccg cttctccacc 1560
183 gaacctgcgc tgcggccatg cggggcgccg cacgctccct tcctgggcgg cacgatgatc 1620
184 atcgcgctgg gcggcgtcat cgtagcctcg gtactggtct tcatcttcgt gctgctaatg 1680
185 cgctacaagg tgcacggcgg ccagcccccc ggcaaggcca agattcccgc gcctgttagc 1740
186 agcgtttgct cccagaccaa cggcgccctg ggccccacgc ccacgcccgc cccgcccgcc 1800
187 ccggagcccg cggcgctcag ggcccacacc gtggtccagc tggactgcga gccctggggg 1860
```

RAW SEQUENCE LISTING DATE: 09/11/2002
PATENT APPLICATION: US/09/732,436D TIME: 10:22:35

Input Set : A:\Cura-115.app
Output Set: N:\CRF4\09112002\I732436D.raw

cccggccacg aacctgtggg accctag 1887

<210> SEQ ID NO: 6
<211> LENGTH: 628
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 6

Met Ala Ile Leu Pro Leu Leu Leu Cys Leu Leu Pro Leu Ala Pro Ala
1 5 10 15
Ser Ser Pro Pro Gln Ser Ala Thr Pro Ser Pro Cys Pro Arg Arg Cys
20 25 30
Arg Cys Gln Thr Gln Ser Leu Pro Leu Ser Val Leu Cys Pro Gly Ala
35 40 45
Gly Leu Leu Phe Val Pro Pro Ser Leu Asp Arg Arg Ala Ala Glu Leu
50 55 60
Arg Leu Ala Asp Asn Phe Ile Ala Ser Val Arg Arg Arg Asp Leu Ala
65 70 75 80
Asn Met Thr Gly Leu Leu His Leu Ser Leu Ser Arg Asn Thr Ile Arg
85 90 95
His Val Ala Ala Gly Ala Phe Ala Asp Leu Arg Ala Leu Arg Ala Leu
100 105 110
His Leu Asp Gly Asn Arg Leu Thr Ser Leu Gly Glu Gly Gln Leu Arg
115 120 125
Gly Leu Val Asn Leu Arg His Leu Ile Leu Ser Asn Asn Gln Leu Ala
130 135 140
Ala Leu Ala Ala Gly Ala Leu Asp Asp Cys Ala Glu Thr Leu Glu Asp
145 150 155 160
Leu Asp Leu Ser Tyr Asn Asn Leu Glu Gln Leu Pro Trp Glu Ala Leu
165 170 175
Gly Arg Leu Gly Asn Val Asn Thr Leu Gly Leu Asp His Asn Leu Leu
180 185 190
Ala Ser Val Pro Ala Gly Ala Phe Ser Arg Leu His Lys Leu Ala Arg
195 200 205
Leu Asp Met Thr Ser Asn Arg Leu Thr Thr Ile Pro Pro Asp Pro Leu
210 215 220
Phe Ser Arg Leu Pro Leu Leu Ala Arg Pro Arg Gly Ser Pro Ala Ser
225 230 235 240
Ala Leu Val Leu Ala Phe Gly Gly Asn Pro Leu His Cys Asn Cys Glu
245 250 255
Leu Val Trp Leu Arg Arg Leu Ala Arg Glu Asp Asp Leu Glu Ala Cys
260 265 270
Ala Ser Pro Pro Ala Leu Gly Gly Arg Tyr Phe Trp Ala Val Gly Glu
275 280 285
Glu Glu Phe Val Cys Glu Pro Pro Val Val Thr His Arg Ser Pro Pro
290 295 300
Leu Ala Val Pro Ala Gly Arg Pro Ala Ala Leu Arg Cys Arg Ala Val
305 310 315 320
Gly Asp Pro Glu Pro Arg Val Arg Trp Val Ser Pro Gln Gly Arg Leu
325 330 335
Leu Gly Asn Ser Ser Arg Ala Arg Ala Phe Pro Asn Gly Thr Leu Glu

```
261              340                 345                 350
263 Leu Leu Val Thr Glu Pro Gly Asp Gly Gly Ile Phe Thr Cys Ile Ala
264          355                 360                 365
266 Ala Asn Ala Ala Gly Glu Ala Thr Ala Ala Val Glu Leu Thr Val Gly
267      370                 375                 380
269 Pro Pro Pro Pro Pro Gln Leu Ala Asn Ser Thr Ser Cys Asp Pro Pro
270 385                 390                 395                 400
272 Arg Asp Gly Asp Pro Asp Ala Leu Thr Pro Pro Ser Ala Ala Ser Ala
273                 405                 410                 415
275 Ser Ala Lys Val Ala Asp Thr Gly Pro Pro Thr Asp Arg Gly Val Gln
276              420                 425                 430
278 Val Thr Glu His Gly Ala Thr Ala Ala Leu Val Gln Trp Pro Asp Gln
279          435                 440                 445
281 Arg Pro Ile Pro Gly Ile Arg Met Tyr Gln Ile Gln Tyr Asn Ser Ser
282      450                 455                 460
284 Ala Asp Asp Ile Leu Val Tyr Arg Met Ile Pro Ala Glu Ser Arg Ser
285 465                 470                 475                 480
287 Phe Leu Leu Thr Asp Leu Ala Ser Gly Arg Thr Tyr Asp Leu Cys Val
288                 485                 490                 495
290 Leu Ala Val Tyr Glu Asp Ser Ala Thr Gly Leu Thr Ala Thr Arg Pro
291              500                 505                 510
293 Val Gly Cys Ala Arg Phe Ser Thr Glu Pro Ala Leu Arg Pro Cys Gly
294          515                 520                 525
296 Ala Pro His Ala Pro Phe Leu Gly Gly Thr Met Ile Ile Ala Leu Gly
297      530                 535                 540
299 Gly Val Ile Val Ala Ser Val Leu Val Phe Ile Phe Val Leu Leu Met
300 545                 550                 555                 560
302 Arg Tyr Lys Val His Gly Gly Gln Pro Pro Gly Lys Ala Lys Ile Pro
303                 565                 570                 575
305 Ala Pro Val Ser Ser Val Cys Ser Gln Thr Asn Gly Ala Leu Gly Pro
306              580                 585                 590
308 Thr Pro Thr Pro Ala Pro Pro Ala Pro Glu Pro Ala Ala Leu Arg Ala
309          595                 600                 605
311 His Thr Val Val Gln Leu Asp Cys Glu Pro Trp Gly Pro Gly His Glu
312      610                 615                 620
314 Pro Val Gly Pro
315 625
318 <210> SEQ ID NO: 7
319 <211> LENGTH: 802
320 <212> TYPE: DNA
321 <213> ORGANISM: Equus caballus
323 <400> SEQUENCE: 7
324 aaatcagaga tattataagt acacatatcc ctattaacgg cctagttggc aagaatgtca 60
325 tcagagaacc tcggtccaag ttcagagaca cccagctcag ccaggccagc agcaccctcg 120
326 ttttccccat ggccctcctg ccctctctct tgacggccct ggtggtgtac gagttatggc 180
327 cctgtggagc tctgggctgt gacctgcctc agaaccacat cctggttagc aggaagaact 240
328 tcgtgcttct gggccaaatg agcagaatct cctccgcaat ctgtctgaag gacagaaaag 300
329 acttcaggtt cccccaggac atggcggatg gcaggcagtt cccagaggcc caggccgcgt 360
330 ctgtcctcca cgagatgctc cagcagatct tcagcctctt ccacacagag cgctcgtctg 420
```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 09/11/2002
PATENT APPLICATION: US/09/732,436D TIME: 10:22:36

Input Set : A:\Cura-115.app
Output Set: N:\CRF4\09112002\I732436D.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93
Seq#:3; N Pos. 94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109
Seq#:3; N Pos. 110,111,112,113,114,115,116,117,118,119,120,121,122,123,124
Seq#:3; N Pos. 125,126,127,128,129,130,131,132,133,134,135,136,137,138,139
Seq#:3; N Pos. 140,141,142,143,144,145,146,147,148,149,150,151,152,153,154
Seq#:3; N Pos. 155,156,157,158,159,160,161,162,163,164,165,166,167,168,169
Seq#:3; N Pos. 170,171,172,173,174,175,176,177,178,179,180,181,182,183,184
Seq#:3; N Pos. 185,186,187,188,189,190,191,192,193,194,195,196,197,198,199
Seq#:3; N Pos. 200,201,202,203,204,205,206,207,208
Seq#:4; Xaa Pos. 24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42
Seq#:4; Xaa Pos. 43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61
Seq#:4; Xaa Pos. 62,63,64,65,66,67,68

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/732,436D

DATE: 09/11/2002
TIME: 10:22:36

Input Set : A:\Cura-115.app
Output Set: N:\CRF4\09112002\I732436D.raw

L:88 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:60
L:89 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:120
L:90 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:180
L:114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:16
L:117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:32
L:120 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:48
L:123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:64